

What is claimed is:

1. A visible/near-infrared spectrometry method comprising steps of:

- irradiating a sample specimen with visible light and/or near-infrared light in the wavelength range 400 nm to 2500 nm or a part of the range;

- analyzing the spectra of transmitted light, reflected light, and/or transmitted/reflected light obtained from said sample specimen;

- determining the presence and/or measuring the characteristics of respective specific components present in said sample specimen, wherein said method further comprises steps of:

- measuring spectra while giving perturbations by adding predetermined specific conditions to the sample specimen; and

- building a model assuming that distinction of respective components and/or characteristics of the components can be measured by conducting spectral analysis and/or multivariate analysis.

2. A visible/near-infrared spectrometry method comprising steps of:

- irradiating a sample specimen with visible light and/or near-infrared light in the wavelength range 400 nm to 2500 nm or a part of the range;

- analyzing the spectra of transmitted light, reflected light, and/or transmitted/reflected light obtained from said sample specimen; and

- determining the presence and/or measuring the characteristics of respective specific components present in said sample specimen, wherein said method further comprises steps of:

- measuring spectra in all or a part of the wavelength range while giving water activating perturbations (WAP) to activate water existing within and/or around said sample specimen to promote interaction between water molecules and predetermined specific component included in said sample specimen;

- conducting spectral analysis and/or multivariate analysis of spectral response including element peaks of the water molecules varying depending on a characteristic of the component of said sample specimen to detect transitional changes of spectral response patterns; and

building a model assuming that distinction of respective components and/or characteristics of the components can be measured through the detected transitional changes in the spectral response patterns.

3. A visible/near-infrared spectrometry method according to claim 2 wherein said perturbations are condition changes to generate physical and/or chemical changes to said sample specimen, by adding one or more condition changes like repeated light irradiations, change of sample specimen concentration, extension of irradiation time, electromagnetic force application, light path-length changes, temperature changes, pH changes, and pressure changes.
4. A visible/near-infrared spectrometry method according to claim 3 wherein the perturbations are a combination of the repeated light irradiations, and the change of sample specimen concentrations are changed in order of every tenfold step (e.g. 10^{-1} to 10^{-10}), and said repeated light irradiations must be consecutive repeated at least 3 times.
5. A visible/near-infrared spectrometry method according to claim 4 wherein determined are bacteria in said sample specimens and the bacteria are CNS (coagulase-negative staphylococcus) and CPS(coagulase-positive staphylococcus).
6. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which sample specimen concentrations are changed in step values and respective changes are subjected to at least 3 times consecutive repeated irradiations, to detect protein PrP(CU) and/or PrP(Mn) which contain metal component and protein PrP containing no metal component.
7. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which light path-length and/or concentrations are changed and respective changes are subjected to at least 3 times consecutive repeated irradiations, to determine protein PrP(metal) containing metal components and protein PrP containing no metal components.

8. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which sample specimen concentrations are changed in step values and respective changes are subjected to repeated irradiations, to measure antigen concentrations in the sample specimen.
9. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which sample specimen concentrations are changed in step values and respective changes are subjected to at least 3 times consecutive repeated irradiations, to measure a diameter of granule in pre-dissolved state of the granule dissolved in the sample.
10. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which sample specimen concentrations are changed in step values and respective changes are subjected to at least 3 times consecutive repeated irradiations, to determine different types of bacteria in the sample specimen.
11. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which the spectrometry is conducted at least one time each in the morning and in the evening per day for a plurality of consecutive days, and the spectrometry is again conducted at least one time each in the morning and in the evening per day for a plurality of consecutive days after feeds are changed, to estimate component concentrations of biological fluids including blood plasma and rumen juice of mammals such as cows based on raw milk spectra of the mammals.
12. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which the spectrometry is conducted at least one time each in the morning and in the evening per day for a plurality of consecutive days, and the spectrometry is again conducted at least one time each in the morning and in the evening per day for a plurality of consecutive days after feeds are changed, to estimate component concentrations of raw milk of the mammals such as cows based on the spectra of biological fluids including blood plasma and rumen juice

of the mammals.

13. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which light path-length are changed and respective samples are subjected to at least 3 times consecutive repeated irradiations and the spectrometry is conducted only in first wavelength range, or conducted in the first and second wavelength range, said first wavelength being in range from 700 nm to 1100 nm and said second wavelength being in range from 1100 nm to 2400 nm, to measure concentrations of plural components of raw milk.
14. A visible/near-infrared spectrometry method according to claim 3, wherein the spectrometry is conducted while giving perturbations in which 10 V. voltage is applied and light in the wavelength range from 500 to 1000 nm is consecutively irradiated at least 3 times, to measure fat concentrations of raw milk.
15. A visible/near-infrared spectrometry device comprising:
 - a near-infrared light generating means for generating visible light and/or near-infrared light in the wavelength range 400 nm to 2500 nm or a part of the range to a sample specimen;
 - an optical means for irradiating said visible light and/or near-infrared light to the sample specimen;
 - a detecting means for obtaining spectra of transmitted light, reflected light, or transmitted/reflected light from said sample specimen; and
 - a data processing means for conducting a predetermined multivariate analysis on obtained spectra,
 wherein the visible/near-infrared spectrometry device further comprises: a perturbation giving means for giving perturbations by adding predetermined conditions to said sample specimen; and
 said data processing means conducting a spectral analysis on all or a part of the wavelength range of spectral responses obtained by giving perturbations.
16. A visible/near-infrared spectrometry device according to Claim 15, wherein said perturbation giving means promotes interaction between water molecule and predetermined specific component included in said sample specimen by giving perturbations (WAP) to activate

water existing within and/or around said sample specimen, and comprises an irradiation controlling unit for controlling irradiation time and number of irradiations are provided.

17. A visible/near-infrared spectrometry device according to Claim 16, wherein said perturbation giving means comprises at least one of means capable of adjusting electromagnetic power, changing light path-length, and changing temperature;

and comprises a controlling means for controlling perturbations given by said perturbation giving means and operation timing between irradiating light and receiving light so as to irradiate light and receive light from probes which comprises said optical means and said detecting means together or separately and perform data processing.

18. A visible/near-infrared spectrometry device according to Claim 17, wherein said data processing means execute the spectral analysis of all or part of several distinct wavelengths ranges of spectral responses and detect bio-macromolecular structures or functions and these changes.

19. A visible/near-infrared spectrometry device comprising:

a sample specimen containing unit;

a perturbation giving means for giving perturbations by adding predetermined conditions to the sample specimen;

an optical means for irradiating visible light and/or near-infrared light in the wavelength range 400 nm to 2500 nm or a part of the range to the sample specimen, said lights being in a predetermined specific wavelength range corresponding to sample specimen;

a detecting means for obtaining spectra of transmitted light, reflected light, or transmitted/reflected light from said sample specimen;

a data processing means for conducting a predetermined multivariate analysis on obtained spectra;

a displaying means for display a measurement result.

20. A visible/near-infrared spectrometry device according to claim 19 for implementing the visible/near-infrared spectrometry method described in any one of claims 5 to 14, wherein important wavelengths

ranges which is optimal for measuring respective sample specimens are predetermined.